

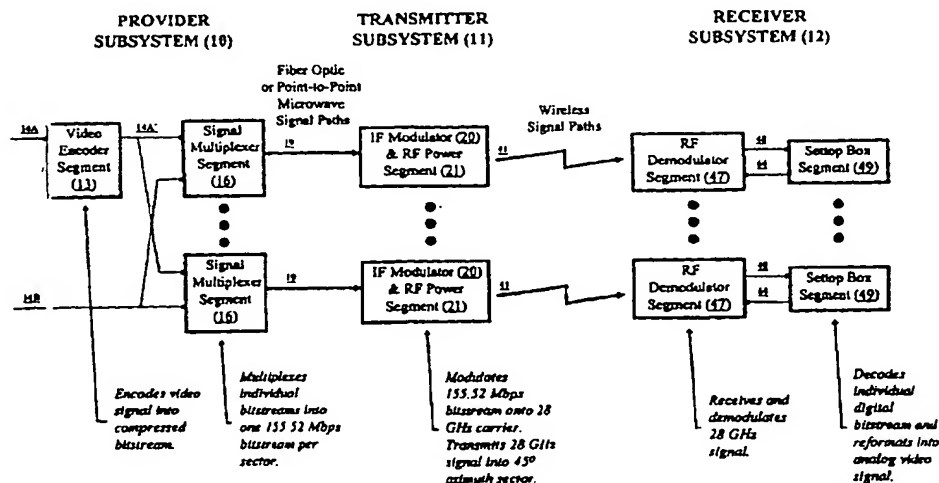


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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>H04N 7/08, H04L 27/20</b>		<b>A1</b>	(11) International Publication Number: <b>WO 97/18674</b>
			(43) International Publication Date: 22 May 1997 (22.05.97)
(21) International Application Number: <b>PCT/US96/18804</b> (22) International Filing Date: <b>12 November 1996 (12.11.96)</b> (30) Priority Data: 08/556,333                      13 November 1995 (13.11.95)    US (71) Applicant: <b>WYTEC, INCORPORATED [US/US]; 440 Oakmead Parkway, Sunnyvale, CA 94086 (US).</b> (72) Inventors: <b>STOCKTON, G., William; 1337 Bellwood Court, Los Altos, Ca 94024 (US). OATMAN, William, D.; 5290 Arezzo Drive, San Jose, CA 95138 (US). SIMONS, Brent, S.; 3339 Mauricia Avenue, Santa Clara, CA 95051 (US). SHOENDUVE, James, H.; 4385 Blackford Avenues #4, San Jose, CA 95100 (US).</b> (74) Agent: <b>KREBS, Robert, E.; Burns, Doane, Swecker &amp; Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (US).</b>		(81) Designated States: <b>BR, CA, CN, JP, KR, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</b>  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: **MULTICHANNEL RADIO FREQUENCY TRANSMISSION SYSTEM TO DELIVER WIDE BAND DIGITAL DATA INTO INDEPENDENT SECTORIZED SERVICE AREAS**



## (57) Abstract

A one-way and two-way multichannel radio frequency transmission system and method employing sectorized broadcasting and reduces the effective bandwidth of the broadcast signal by multiplexing (16) available channels of signals (14) into a set of formatted independent digital bitstreams, each bitstream including all or a portion of available channels provided by the system program provider (10). The independent bitstreams are transmitted to transmitter towers using point-to-point transmission (19) methods. The transmitting towers phase modulate (20) and amplify the bitstreams to generate a set of independent modulated signals. Each transmitter tower includes a sectorized antenna for broadcasting (41) the modulated signals to a sectorized service area at a different frequency and opposite polarity than adjacent areas, so that each service area receives a different set of independent modulated signals. Each subscriber site (49) demodulates, demultiplexes and selects one channel from the received modulated signal.

this is Abstract for Dep. Pub. App. 2000-500628